



A study of English communication strategies and self-efficacy of players in Salad Bowl, an education simulation game

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Article Info

Article history:

Received 13 February 2019

Revised 7 July 2019

Accepted 19 July 2019

Available online 1 December 2020

Keywords:

communication strategies,
EFL learners,
Salad Bowl game,
self-efficacy

Abstract

The objectives of this study were to study English communication strategies (ECS) and self-efficacy of participants in the Salad Bowl game. The subjects of this study were all participants (174) registered at international conferences. We used two instruments: (1) questionnaires asking ECS and self-efficacy and (2) the Salad Bowl game for experiment. Descriptive statistics, t-test, and Pearson correlation were used for data analysis. Players rated their ECS and self-efficacy at the high level after playing the game. ECS significantly and positively correlated with self-efficacy.

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Introduction

When English as a foreign language (EFL) learners communicate in a real situation by using their target language such as English, most of them face problems and difficulties with their vocabulary, grammar and expressions. Therefore, they use ECS such as “hand gestures, imitation of sounds or movements, paraphrasing, and invention of new words”, as their communicative devices, (Chuanchaisit & Prapphal, 2009, p. 100) to solve those problems and difficulties. The attempt to use ECS is to successfully reach their communication goal (e.g. Brown, 2000; Dörnyei, 1995; Nakatani, 2010; Savignon, 1983; Tarone, 2005). According to Bandura (1986, p. 392), persons with self-efficacy believe that they have ability to “organize and accomplish the required tasks to manage the upcoming circumstances”. This may apply to EFL learners when they communicate in a real situation. They will competently communicate in their target language if they believe that they have the ability to do so.

Researchers, teachers, and trainers use education games to train students and develop their team performance, ECS, and self-efficacy. This is because education games engage students in the learning environment and encourage them to participate

in their learning. Students work in teams while playing and learning and enable teachers to assess them in more aspects -such as ECS or self-efficacy- than in paper-based tests. In this study, an education game called *Salad Bowl* was used to study ECS and self-efficacy of participants. Devices for this game are easy to prepare and customize to the needs of students. Teachers can simply and conveniently run the game. Through out we study three factors i.e. team interaction, ECS, and self-efficacy; the objectives posted for this paper were to explore ECS and self-efficacy from the conduct of Salad Bowl.

Literature Review

English Communication Strategies (ECS)

Learners use ECS as tools to compensate their communicative competence (Canale & Swain, 1980). ECS help learners to successfully communicate. ECS, Nakatani (2006), are divided into two types: *strategies for coping with speaking problems (SCSP)* and *strategies for coping with listening problems (SCLP)*. SCSP comprise social affective, fluency-oriented, negotiation for meaning while speaking, accuracy-oriented, message reduction and alternation, nonverbal strategies while speaking, message abandonment, and attempt to think in English. SCLP consists of negotiation for meaning while listening, maintaining fluency, scanning, getting the gist, and nonverbal

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strategies while listening for the less active and word-oriented listener. Highly competent EFL learners employ specific and efficient use of ECS (Chen, 2009; Nakatani, 2006). Research results reveal that EFL learners who are trained to use ECS improved their test scores, their use of achievement strategies, and their awareness of strategy use (Nakatani, 2012).

Self-efficacy

Self-efficacy refers to “people’s beliefs or judgement of their capabilities to organize and execute courses of action to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves, and behave” (Bandura, 1994, p. 71). As a result, persons who have high or strong sense of self-efficacy accomplish in their work and personal life more than those who do not. This is because they put in effort and persist to solve problems or difficulties they face. They are not afraid of failure, but they try to recover and apply new means to cope for their success. Persons can develop their self-efficacy by mastery experiences of success, vicarious experiences provided by social models, social persuasion, and positive mood. The major processes to build self-efficacy include cognitive, motivational, affective, and selection processes.

Cognitive processes refer to most courses of action of self-efficacious people which are initially organized in their thought. These courses of action are purposive and regulated by forethought that embodies valued goals. *Motivational processes* play a crucial role in self-beliefs of efficacy. Self-efficacious people motivate themselves and guide their actions anticipatorily by the exercise of forethought. They anticipate likely outcomes of prospective actions. They set goals for themselves and plan courses of action designed to realize valued futures. *Affective processes* help self-efficacious people to cope with, instead of avoiding, stress or depression they experience in threatening or difficult situations in order to achieve their goals despite stress or depression. *Selection processes* facilitate self-efficacious people to create beneficial environments to control activities, events, or environments. Thus, their courses of action respond to activities, events, or environments effectively and appropriately because they can select the right courses of action.

Therefore, to achieve their beliefs or judgement of people’s capabilities, efficacious people set challenging goals and maintain strong commitment to them. They will put in more effort or find a new process if they find that there is likelihood of failure. Moreover, efficacious people always check or evaluate the results of their action as to whether the results co-respond to their goals. This is because efficacious people are confident that they can control threatening and difficult situations.

In this study, cognitive, motivational, affective, and selection processes were applied into three key activities: plan, work, and evaluation in order to elicit the application of self-efficacy of participants in the game. *First*, participants needed to **plan** before playing game. They may set objectives and goals of playing game, prepare data or specify the functions of each member, or allocate their time appropriately. *Second*, game play, they **worked** i.e. they did their tasks. They had to think, motivate, engage, and make decisions of what and how to complete their tasks assigned in the game. *Third*, during

game play, they had to check, review, and evaluate their work so they could monitor the progress or mistake of their actions.

ECS and Self-efficacy

Studies show positive relationship between self-efficacy and English language learners’ strategy (Diseth, 2011; Gahungu, 2007; Naseri & Zaferanieh, 2012; Puripunyavanich & Soontornwipast, 2018; Shi, 2018; Yusuf, 2011), online self-regulation and self-efficacy (Su, Zheng, Liang, & Tsai, 2018), vocabulary learning strategies and self-efficacy with medical English and terminology (Wang, Kao, & Liao, 2016). However, none has studied the relationship between ECS and self-efficacy. As the literature review suggests, this study seeks to understand the relationships between ECS and self-efficacy of participants.

This study, therefore, purposed (i) to study English communication strategies and self-efficacy of participants in the education simulation game, Salad Bowl, (ii) to find correlation between English communication strategies and self-efficacy of participants in the Salad Bowl game, and (iii) to investigate actions and interaction of players related to English communication strategies and self-efficacy while playing the Salad Bowl game.

Methodologies

One group post-test design was used in this study because it covered the behaviors of game participants, not their learning achievements, which were measured as scores. The post-test here referred to questionnaires which asked them to express and measure their personal feelings and experiences in this game. In this paper, participants’ ECS and self-efficacy were investigated after playing the game. This is because both Thai and English native speakers were included in each team. The Institutional Review Board (IRB) of Mahidol University granted us permission to do this study.

Participants

The participants of this study were all participants i.e. 62 Thai and 112 foreigners registered either as participants or speakers at the international conferences organized by one association in Thailand. Foreign participants were from 14 countries from Europe, Asia, America, and Australia. Participants or speakers were graduate students, university teachers, and international professionals in simulation and gaming (S&G) of both genders and were between the age of 15 and 72 years. They were aware of S&G, and 120 participants volunteered to play the game. There was no sampling technique. Each team had 5–6 participants, both Thai and foreigners.

Instrument

To collect data, the study used questionnaires on ECS (5 point Likert scale), developed by Nakatani (2006), and self-efficacy (6 point Likert scale), developed by the authors. (See scales in Table 1). The questionnaire was verified by experts, and we used back translation technique (Brislin &

Lonner, 1986) to translate from English to Thai. The Cronbach's alpha reliability was found to be 0.98. The questionnaires were distributed after the game finished. We received 110 questionnaires out of which, only 92 (83%) were completed and used for this study.

Salad Bowl Game

Salad Bowl game, developed by authors (Dumblekar, Soranastaporn, Yamchuti, & Yamchuti, 2018), was used as a process or a core experiment. Salad Bowl game is used for study team interaction, ECS, and self-efficacy. In this study, only ECS and self-efficacy are presented. The *purposes* of the game are to promote teamwork, to practice critical thinking, problem-solving, and share opinions. The *devices* included 15 set of jigsaw, instruction and description of teamwork in Powerpoint, fifteen B4 pieces of paper, magic pens, and glue (Dumblekar & Soranastaporn, 2019). No instruction was provided, and talk and sign language were prohibited while playing the game. The players received a set of game devices and played. Teams which finished first, second, and third received gifts.

Data Collection

After players finished their feedback, the questionnaire was distributed to the participants. They were asked to complete the questionnaire according to their knowledge, feeling, and experience gained from participating in this game. Then the questionnaire was collected from the participants, and checked; the data from only completed questionnaires were keyed in for analysis.

Data Analysis

Mean, standard deviation, and Pearson correlation were used for data analysis. We divided ECS into speaking ECS and listening ECS to analyze the relationship results because we want to identify which strategy (listening or speaking) was used more, players' problems and which strategy was most used when they communicated in English. Results of data analysis are presented.

Results

English Communication Strategies and Self-efficacy of Participants

Table 2 revealed that participants used strategies for coping with speaking problems and strategies for coping with listening problems at the high level and the opinions of most participants are close to the average. Participants rated that to maintain their self-efficacy when working; they planned and worked at the rather high level, they evaluated their work at the high level, and the opinions of most participants are close to the average. See details of ECS and self-efficacy Table 3 and Table 4.

Table 3 shows that to coping with speaking problems, participants used social affective strategies most, followed by negotiation for meaning while speaking, and they used accuracy-oriented strategies the least. To cope with listening problems, participants used nonverbal strategies while listening most, followed by fluency-maintaining strategies, and they used less active listener strategies the least.

Table 3 shows that participants plan and work at the rather high level and they check, review, and evaluation their work at the less level.

Table 1 Scale of a questionnaire interpretation

Level	5 point	Likert scale	Level	6 point	Likert scale
5	4.50–5.00	highest	6	5.50–6.00	highest
4	3.50–4.49	High	5	4.50–5.49	rather high
3	2.50–3.49	moderate	4	3.50–4.49	high
2	1.50–2.49	Low	3	2.50–3.49	less
1	1.00–1.49	Lowest	2	1.50–2.49	rather less
			1	1.00–1.49	least

Table 2 Descriptive statistics and Cronbach Alphas of ECS and self-efficacy of participants

Variables	M	SD	α	Level	(N = 92)
1. English Communication strategies					
- Strategies for coping with speaking problems (32 items)	3.65	.55	.98	high	
- Strategies for coping with listening problems (26 items)	3.73	.61	.98	high	
2. Self-efficacy (24 items)	4.68	.66	.98	higher	
- Plan (5 items)	4.83	.78	.98	rather high	
- Work (11 items)	4.83	.78	.98	rather high	
- Evaluation (8 items)	4.31	.66	.98	high	

Table 3 Summary of descriptive statistics of ECS of participants in game

Oral Communication Strategy	μ	SD	(N = 92)
Strategies for Coping with Speaking Problems	3.65	0.55	
Category 1: Social Affective Strategies	3.86	0.63	
Category 2: Fluency-Oriented Strategies	3.70	0.71	
Category 3: Negotiation for Meaning While Speaking	3.84	0.73	
Category 4: Accuracy-Oriented Strategies	3.44	0.80	
Category 5: Message Reduction and Alteration Strategies	3.66	0.75	
Category 6: Nonverbal Strategies While Speaking	3.48	0.74	
Category 7: Attempt to Think in English Strategies	3.54	0.88	
Strategies for Coping with Listening Problems	3.73	0.61	
Category 1: Negotiation for Meaning While Listening	3.77	0.90	
Category 2: Fluency-Maintaining Strategies	3.81	0.67	
Category 3: Scanning Strategies	3.79	0.77	
Category 4: Getting the Gist Strategies	3.70	0.64	
Category 5: Nonverbal Strategies While Listening	3.99	0.84	
Category 6: Less Active Listener Strategies	3.40	1.04	
Category 7: Word-Oriented Strategies	3.64	0.78	

Table 4 Summary of descriptive Statistics of self-efficacy of participants

I perceived that after playing game I can do the following	μ	SD	(N = 92)
Plan	4.83	0.78	
I set objectives of my work	4.84	0.95	
I plan well for my work so I can achieve the goals	4.89	0.86	
I try to accomplish my goals of my work	5.13	0.88	
I prepare data, device, or manuals for my work	4.61	0.96	
I allocate my time appropriately for my work, relax, and house cores	4.66	1.02	
Work	4.83	0.78	
I pay attention to my work definitely	4.80	0.92	
I can understand my work by myself	4.71	0.97	
I can understand problems of my work by myself	4.79	0.94	
I determine to complete my work either it is easy or hard	4.76	0.92	
I listen to and discuss with my group about my work	4.78	0.89	
I can answer questions from my students	4.76	0.92	
I can answer questions from my colleagues	4.48	1.02	
I can do my work independently	4.80	0.86	
I search for information & knowledge	4.85	0.86	
I use my spare time to search for information	4.76	0.86	
I use my spare time to discuss information, knowledge or problem creatively	4.85	0.93	
Check, Review, & Evaluation	4.31	0.66	
I can evaluate my work	4.85	0.88	
I correct my work by myself	4.82	0.85	
I improve my work by myself so it is correct and at the standard level	4.73	0.93	
I can change or adapt the way to work by myself	4.95	0.91	
I monitor the outcomes and goals of work periodically	4.77	0.98	
I can complete my work before the deadline	4.84	0.94	
I can complete my work on the deadline	4.91	0.86	
I can evaluation my work whether it is at the standard level by myself	4.93	0.92	

Relationship between ECS and Self-efficacy of Participants

The Pearson correlations between two scales showed that SCSP ($r = .44, p < .00$) and SCLP ($r = .39, p < .00$) statistically and significantly correlated to self-efficacy. Thus, when participants used SCSP and SCLP more frequently to communicate, their self-efficacy to communicate increased.

To summarize, players rated their ECS and self-efficacy at the high level. There were statistically significant relationships between these two variables at the moderate level.

Discussion

The results of this study conform to theory and previous studies. The findings are discussed.

ECS and Self-efficacy

ECS

EFL players used various ECS to communicate with foreigner players, but at the low level. The results are congruent with previous studies (Brown, 2000; Chuanchaisit & Prapphal, 2009; Dörnyei, 1995; Nakatani, 2010; Savignon, 1983; Tarone, 2005). They spoke at a word level and a sentence level, use non-verbal language, think in their first or mother language (L1), and use Google translation. The reasons may be the subjects of this study are EFL students, so they share these characteristics. Though this group is low EFL proficiency learners, they tried to communicate. This is because they have high motivation and they are inspired after playing game to convey their feeling, opinion, and experience to their teams and the other participants in the conference. Moreover, these subjects as game players feel familiar with each other after playing game together, so they may feel like they are friends and willing to build and continue relationship and communicate without fear or embarrassment.

Self-efficacy

Players expressed their self-efficacy belief in their work that they planned before starting their tasks, they focused on their tasks, and they could review and evaluate their tasks. We observed that their behaviors when playing game correspond to what they express when they work. The behaviors exhibited by participants congruent with Bandura (1994, p. 71) that states that "Self-efficacy beliefs determine how people feel, think, motivate themselves and behave". Though we did not evaluate their products whether they are at high quality because of limited time, we found that they paid high attention to their tasks, showed their willingness to complete the tasks. Thus, we expect that they will work, develop, and produce quality products and this point conforms to previous study done by Berkant and Baysal (2018).

Relationship between English Communication Strategies and Self-efficacy of Participants

The results indicated that in all, there were statistically significant relationships between English ECS and self-efficacy. The results of our study corresponded to research results in

previous studies which explored relationship between self-efficacy and English language learning strategy (Diseth, 2011; Gahungu, 2007; Naseri & Zaferanieh, 2012; Shi, 2018; Yusuf, 2011). Though our study focuses on ECS and the others emphasized in English language learning strategy, the studies have the same goal, which is communication, and the same research results reveal i.e. statistically significant relationships between variables. These results could lead to better teaching and learning in 21st Century where teachers should design tasks that allow students to work in teams and arrange English communication activities and environment. This will motivate and encourage students to use English and construct their own dialogues within their team. After repeated practice, they would gain self-efficacy to use English in communications and to work in teams, effectively.

To conclude, players are aware of the goal of their tasks. This game encourages EFL players to communicate with foreigners in English. When EFL players play and learn how to work as a team, they interact and communicate. Then their self-efficacy develops. Teachers may use the results of this study team interaction, English communicative strategies, and self-efficacy to promote English learning for communication.

Conclusion, Limitations, and Recommendation

EFL players in this game were both Thai and foreigners. The next study may be conducted with other group of EFL learners who have different background and English proficiency level. This study used questionnaires and observation to collect data, and used feedback as one source of data to understand the variables from different perspectives in the game. After playing this game, its participants rushed to the other session of the conference, and therefore, interview could not be conducted to collect in-depth data. Thus, future studies may use interview or other tools to gain more insight data. We did not do random sampling of our subjects, but we invited all participants to join us so they were our population. Researchers may replicate this current study to confirm and create more understanding of team interactions.

Conflict of Interest

There is no conflict of interest.

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